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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application	:	CORNELIS HENDRICUS CORNELISSEN
Serial No.	:	09/744,637
Filed	:	March 21, 2001
For	:	TRANSFER PAPER FOR INK-JET PRINTING
Examiner	:	Betelhem Shewareged
Attorney's Docket	:	VER-142XX

Group Art Unit: 1774

* *

I hereby certify that this correspondence is being sent via facsimile to Examiner Betelhem Shewareged, Group Art Unit 1774, Fax No. (703) 305-5408, on 10-8-3.

By _____
Charles L. Gagnebin III
Registration No. 25,467
Attorney for Applicant(s)

* *

DECLARATION OF CORNELIS HENDRIKUS CORNELISSEN

VIA FACSIMILE ((703) 305-5408)
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Cornelis Hendrikus Cornelissen, a citizen of The Netherlands, residing at Troelstralaan 19, NL-6971 CN Brummen, The Netherlands, hereby declare as follows:

1. I am the Development Engineer at W.A. Sanders Papierfabriek Coldenhove B.V., The Netherlands (hereinafter "Coldenhove") since 1985.

2. I have had over 30 years experience in the manufacture of paper at Coldenhove.

3. I am a co-inventor of the subject matter set forth in the present, above-identified United States patent application.

4. I have read and am familiar with the prosecution history of the present application.

5. As the person responsible for developing the Jetcol HTR Special paper, which is the paper that was disclosed in the present application, I had access to the manufacturing protocol documents that were being used, and I was aware of the method of its manufacture.

6. From the beginning state of the production of Jetcol HTR Special paper through the present time, Jetcol HTR Special paper was manufactured without any filler. The manufacturing protocol that was in use during the time period prior to July 29, 1998, is attached as Attachments A and B. One copy is in Dutch (Attachment A) and the other copy is the English translated version of same (Attachment B). As can be seen from the manufacturing protocol, no filler of any kind was included in the product formulation. The addition of fillers was not contemplated in the initial prototype products.

7. Additionally, the prototypes represented in the three company brochures for the Jetcol HTR Special paper, submitted herewith as Attachments C, D and E, were produced

according to the manufacturing protocol (Attachments A and B), which does not utilize fillers.

I declare further that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the document, or application, or any patent issuing thereon.

Signed this Tues day of October 7, 2003.

By: _____
Cornelis Hendrikus Cornelissen

Enclosure: Attachments A-E

1. Te gebruiken apparatuur

Apparaat : coatinstallatie

2. Routinecontrole

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3. Monster voorbereiding

-

4. Bediening/meting

Starten (vrijdag vóór coataanmaak)

- Controleer of de installatie schoon is, spoel roestwater weg, rioolkraan voorraadtank dicht, aflaatkraan voorraadtank open.
- Controleer de gewichtsinstelling van de weegschaal (250kg): druk op set point discharge, daarna op enter.
- Controleer en stel de waterteller in op 135 (= 1350 ltr), geen dunne charge meer aanmaken!
- Maak charge 1 en 2 aan:
  Zet volgende knoppen op auto (2)
  * roerwerk voorraadtank
  * pomp naar voorraadtank
  * stoomklep
  * spoelklep
  * dispergeer
  * waterdoseerklep
  * transportschroef
  * aflaatklep
  * rioolklep
  * pomp opwitter

  Pomp naar WT op "0", startknop op "0".
- Druk op rode resetknop
- Zet de startknop op "1 charge".
- Oplossen begint: dosering 250 kg CMC-poeder, 1350 ltr water,
  - 1 ltr tinopal [=opwitter]
  - dispergeren (75 minuten)
  - rusttijd (5 minuten)
  - oproeren (1,5 minuten)
  - overpompen charge van aanmaaktank naar voorraadtank.
- Zet na het overpompen de startknop op 0, daarna terug op "1 charge", de 2^e charge wordt opgelost en overgepompt.
- Spoel na het overpompen van de 2^e charge de leiding tussen de voorraadtank en werktank met coating (i.o.m. machinevoerder):
  - niveauregelaar werktank op 0
  - 3 wegkraan boven voorraadtank naar riool
  - pomp naar werktank op "hand" totdat warme coating retour komt.
- Zet knop roerwerk voorraadtank op "hand", de andere schakelaars op 0.
- Zet de 3 wegkranen boven voorraadtank terug op retourstand.

Maandagmorgen

- Stel de waterteller in op 135.
- Controleer of de werktank gevuld kan worden (i.o.m. Teamleider).
- Zet alle knoppen op auto, laat startknop nog op 0 staan (buiten gebruik zijnde knoppen mogen ook op 0 blijven staan).
- Druk op de rode resetknop.

- Zet de startknop op "continu": charge 3 wordt opgelost, en wordt overgepompt wanneer er voldoende ruimte is in de voorraadtank.
- De volgende charges starten automatisch, tenzij de big bag leeg is, of als er een storing optreedt.

Let op

- Bij een nettovoorraad < 375 kg op moet eerst de big bag vervangen worden. De stofbereiding krijgt een signaal (rood knipperlicht) als de big gewisseld kan worden. Wissel de big bag binnen 30 minuten na het alarmsignaal.
- Bij afwijken van het automatisch oplossen, bijv. na een storing, of na het op hand zetten van een van de schakelaars die in gebruik zijn, moet de rest van de oploscyclus op hand uitgevoerd worden. Als de charge in de voorraadtank past: aflaatklep op hand, dispergeer 1,5 minuut op hand (oproeren), daarna op 0. Pomp de charge over (pomp naar voorraadtank op hand). Pomp niet droog laten lopen.
- Om het oplossen weer automatisch te laten verlopen: alle Schakelaars op 0, daarna op auto (behalve startknop). Druk op de rode resetknop en zet de startknop op "continu". De volgende charge zal beginnen met oplossen.

Eind van de coataanmaak

- Als het niveau van de voorraadtank 4 uur voor de stop tussen 50% en 100% is, de startknop op 0 zetten. Er zal dan geen nieuwe charge opgelost worden, en een eventueel nog draaiende charge wordt gewoon afgemaakt en overgepompt.
- Als de aanmaaktank leeg is deze vullen met water en schoon-Maken.
- Als de coater van het papier aan het eind van de aanmaak is, De pomp naar de werktank uitzetten. Wanneer de voorraadtank nog behoorlijk gevuld is met coating, met de ploegbaas overleggen wat hiermee te doen. Als het bewaard wordt het roerwerk aan laten staan.
- Zet alle schakelaars op 0, behalve roerwerk voorraadtank (op Hand).

5. Berekeningen

-

6. Wat te doen bij problemen

- Bij een storing aan de coatinstallatie zal er bij de stofbe-Reiding een rood alarmlampje continu gaan branden. Ga direct naar de installatie en leg vast wat de storing is. (deze wordt weergegeven op het display). Als op de rode resetknop drukken niet helpt de storing melden.

1. Apparatuses to be used

Apparatus : coatings installation

2. Routine check

-

3. Sample preparation

-

4. Operation / Measurement

Start (Friday before preparation of coating)

- Check whether the equipment is clean, rinse rusty water, close sewer tap of the storage tank, open venting tap of storage tank.
- Check the weight setting of the balance(250kg): Press "set point discharge", after that "enter".
- Check and adjust the water counter to 135 (= 1350 ltr), do not prepare thin batches any more!
- Prepare batches 1 and 2:
  Set the following switches to "auto" (2)
  * stirrer storage tank
  * pump to storage tank
  * steam valve
  * rinse valve
  * disperse
  * water dosage valve
  * transport screw
  * discharge valve
  * sewer valve
  * pump Optical Brightener

  Pump towards WT on "0", start button on "0".
- Press red reset button
- Switch starting button to "1 batch".
- Start of dissolving: dosing 250 kg CMC powder, 1350 ltr water,
  - 1 ltr tinopal [=optical brightener]
  - disperse (75 minutes)
  - rest time (5 minutes)
  - mix (1,5 minutes)
  - pump the batch from the preparation vessel to the storage vessel.
- After pumping set start button to 0, then back to "1 charge", the 2nd batch is dissolved and pumped.
  Directly after pumping of the 2nd batch the line between de storage tank and the working tank is to be flushed with coating (in coordination with machine operator):
  - Level regulator working tank to 0
  - 3 way valve above storage tank to sewer
    pump to working tank on "manual" until warm coating returns.
- Switch button of stirrer in storage tank to "manual", the others switches to 0.
- Put the 3-way valves above the storage tank back in the return position.

Monday morning

- Set the water counter to 135.

- Check if the working tank can be filled (in consulation with the team leader).
- Set all switches to auto, leave start button on 0 (switches that are not used may also remain on 0).
- Press the red reset button.

- Set the start button on "continuous": batch 3 is dissolved, and is transferred by pumping when there is sufficient room in the storage tank.
- The next batches start automatically, unless the big bag is empty, or if a malfunction occurs.

Caution
At a nett stock of < 375 kg the big bag must be replaced first. The compound preparation is given a signal (red flashing light) if the big bag can be exchanged. Exchange the big bag within 30 minutes after the alarm signal.

- If there are deviations from automatic dissolving, *e.g.* after a malfunction, or after setting one of the switches in use to manual, the remainder of the dissolving cycle must be carried out manually. If the batch fits in the storage tank: vent valve to manual, manually disperse for 1.5 minute(instirring), after that to 0. Transport the charge by pumping (pump to storage tank on manual). Do not let the pump run dry.
- To let the dissolving proceed automatically again: all switches to 0 after that on auto (except stat button). Press the red reset button and set starting button to "continuous".
- The next batch will start with dissolving.

End of coating preparation
If the level of the storage tank 4 hours before stopping is between 50 and 100%, set starting button to 0. Then there will not yet be dissolved a new batch, and any batch that is possibly still proceeding will simply be finished an pumped over.

- If the preparation tank is empty, fill it with water and clean it.
- If the coater of the paper is at the end of the preparation, switch off the pump to the working tank. When the storage tank is still considerably filled with coating, discuss with the shift leader what to do with it. If it is kept leave the stirrer on.
- Set all switches to 0, except the stirrer storage tank (to Manual).

5. Calculations

-

6. What to do with problems

- When there is a malfunction in the coating installation, a small red light at the compound preparation will start to burn continuously. Go directly to the installation and record what the malfunction is. (this is given in the display). If pressing the red reset button does not help than report the malfunction.

About Coldenhove Papier

Coldenhove Papier of Eerbeek, Holland, is the leading manufacturer of papers for sublimation transfer printing with disperse dyestuffs on rotary machines.

As the first generation of inkjet printers is making its appearance in the printing shops of transfer printers all over the world, and proper inks are beginning to be offered by leading suppliers, the need has arisen for a paper designed specifically for this application. Coldenhove Papier has therefore taken the initiative to manufacture such a paper - one which fulfils the requirements of this rapidly developing technology.

Now, with the introduction of Jetcol HTR, Coldenhove Papier has set the standard for Digital Transfer Printing.

Jetcol HTR

Coldenhove Papier is pleased to introduce the first transfer printing base paper specially designed for inkjet printing with disperse dyestuffs.

Jetcol HTR is based upon a scalable design. The version for small sublimation applications is fully compatible with the versions to be introduced for digital production printing.

As a transfer base paper Jetcol HTR offers very high transfer yield, excellent contour and fine detail printing, and evenness in large batches and units.

As an inkjet printing paper Jetcol HTR offers stable, creaseless printing and even absorption at up to 300% coverage.

Jetcol HTR is a commercially available product, manufactured and supported by the Coldenhove Papier organization.

coldenhove papier
eerbeek, holland

ATTACHMENT D

coldenhove papier
eerbeek, holland

JUNE - 1998

Jetcol HTR special

Our Business Philosophy

Our business philosophy can be put into two words: concentration and specialization. All our experience, all our skills and all our financial and organizational resources are focused on a few specialized markets. This focus allows us to guarantee our customers maximum value. Concentration and specialization include working with customers as a trusted partner to improve existing products and to test new technologies, resulting in technical leadership for customer and supplier alike.

Picture: The approach to Coldenhove Papier

Sponsorship

When our managing director decided that he wanted to sponsor the field hockey team of his twelve year old daughter and the soccer team of his ten year old son, we had just completed the first prototype of Jetcol HTR. We decided to print personalized shirts for the soccer team with some of the very first paper leaving our development lab. The young players don't know about this fact, but Mr. Van Houtum is doubly proud every time 'his' teams win a match.

Jetcol HTR The Standard For Digital Transfer Printing

Capital Investment

After introducing Jetcol HTR in November 1997, we established a stock holding in a special warehouse for the most widely used specifications. This reflects the first major commitment to the requirements of digital transfer printing market, because in our other specialty businesses we manufacture strictly to order.

Our next capital investment projects focus on our proprietary barrier coating technology. In the next few weeks we hope to dramatically improve the yield of the manufacturing process, thus paving the way for substantial cost and price reductions. In a further investment project we plan to effectively double our in-line coating capability, allowing us to realize in full scale production the next design steps developed for Jetcol HTR. This should be completed before the end of the year.

Invitation

If you wish to inspect at first hand the results that can be achieved with inkjet transfer printing, you are most welcome to visit us in Eerbeek, Holland. We invite you to discuss any aspects of digital printing with us, so as to help you decide the steps to be taken and when to take them in order to participate in the digital revolution.

Previous Developments Jetcol HTR

Bubble Jet Printing

The first inkjet printing trials on the prototype of Jetcol HTR were performed on a bubble jet printer of a software manufacturer involved in the development of inkjet printing with sublimation transfer dyestuffs and who was looking for a suitable paper.

The results were surprisingly good: a sharp print and an extremely high transfer yield. Following this first success, we immediately bought a printer (Novajet III) of our own to be able to test the prototype of Jetcol HTR and any other trial papers we made.

During the first printing trials we found that the initial coating used was not sufficient for a satisfactory print result taking into account the evenness of the transfer result and high deposits of inks.

With further development of the coating we achieved satisfactory results, so we asked ink manufacturers and some of our customers who already had an inkjet printer, to test our paper.

Piezo Printing

Very recently we bought a piezo printer to be able to test our Jetcol HTR and other trial papers in this field also. Customers and ink manufacturers were again asked to test Jetcol HTR.

Results

So far several of our papers have given good results on different printers. We cannot exclude the possibility that different types of printer/ink combinations may require different papers. Since the paper concept we chose is based on a scalable design, we will be able to adjust the basic concept to different printer types or applications.

We are confident, however, that eventually one type of paper will cover the needs of all printer/ink combinations or applications.

For more information mail or fax this form to:

Coldenhove Papier
P.O. Box 6
6960 AA Eerbeek
Holland

Tel +31 313 659010
Fax +31 313 654655
E-mail: colpap@worldonline.NL

- ○ please send sample roll of Jetcol HTR
- ○ arrange visit to Coldenhove Papier
- ○ arrange appointment with technician
- ○ other : .....

.....

Company name : .....

Name : .....

Position : .....

Tel : .....

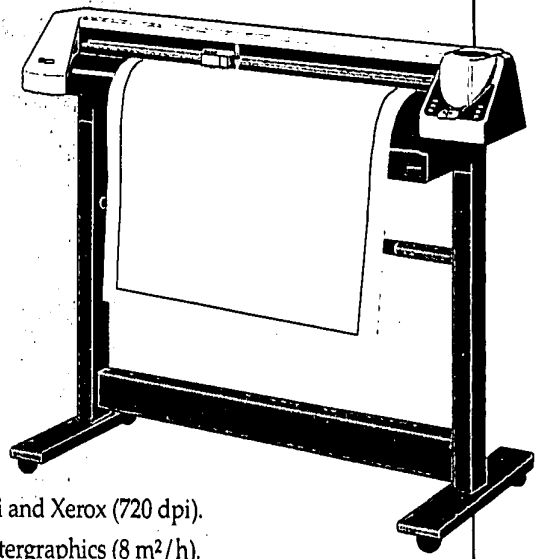
Fax : .....

Seen on CeBIT 98

CeBIT 98 is the largest European Computer Exhibition, which took place from 19 to 25 March, 1998. The latest developments in wide format inkjet printing were shown.

The most important suppliers of wide format inkjet printers present were:

Encad
Calcomp
Mimaki
Rastergraphics
Roland
HP
Xerox
First



Largest width by Mimaki (160 cm).
Highest resolution by Calcomp, Mimaki and Xerox (720 dpi).
Highest speed at high resolution by Rastergraphics (8 m²/h).

Future Developments

At this moment the two main printing technologies are bubble jet and piezo printing, where piezo seems to be ahead of bubble jet. Both technologies however are still in the development stage, so this is by no means the end of the matter.

Printing speed and width will grow with future developments of computer technology. Production inkjet printing as opposed to sample printing is going to be a reality in the near future.

Jetcol HTR

The Standard For Digital Transfer Printing

Jetcol HTR The Standard For Digital Transfer Printing

Jetcol HTR Standard specifications

Roll width	Length	Core	Diameter
42 cm (16.5")	50 metres	5 cm	9.5 cm
91.4 cm (36")	50 metres	5 cm	9.5 cm
130 cm (51")	210 metres	7.6 cm	18 cm
160 cm (63")	210 metres	7.6 cm	18 cm

New specification

Keeping up with inkjet printing developments the inner core of the 130 and 160 cm wide rolls has been changed to 7.6 cm.

As of July 1998 the new roll width of 42 cm will be added to the stock range.

coldenhove papier
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Jetcol HTR

The Standard For Digital Transfer Printing

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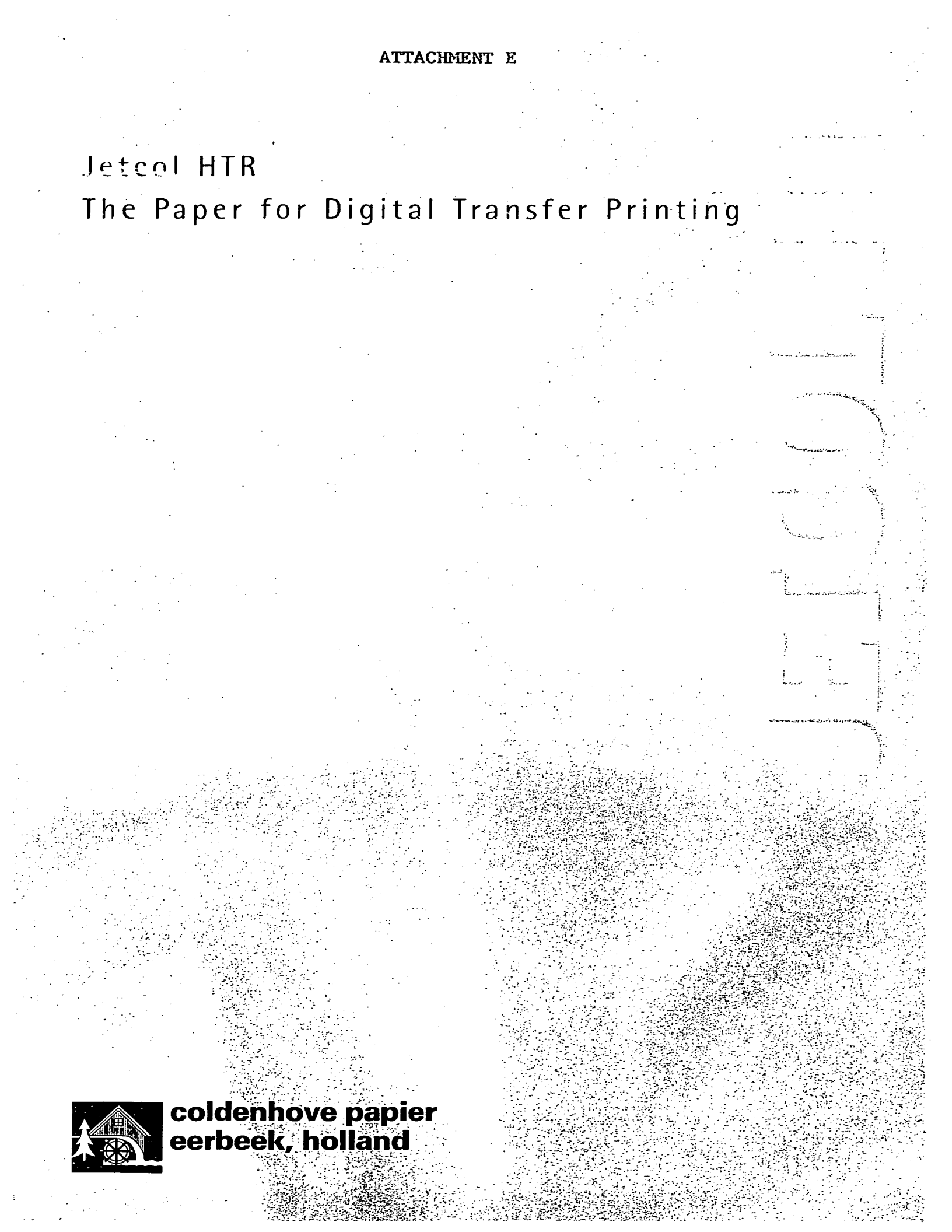
Postage stamp

ATTACHMENT E

Jetcol HTR

The Paper for Digital Transfer Printing



coldenhove papier
eerbeek, holland

about Coldenhove Papier

Coldenhove Papier is the leading manufacturer of papers for sublimation transfer printing with disperse dyestuffs on rotary machines. For many years now the transfer printing industry has relied on our papers, service and innovations. In 1997 Coldenhove Papier took the initiative to develop a paper for digital transfer printing: Jetcol HTR.

Jetcol HTR

the Jetcol concept HTR

Jetcol HTR is a family of transfer printing papers specifically designed for inkjet printing with disperse dyestuffs. Due to the scaleable concept, future versions will be fully compatible with today's papers. As a transfer base paper Jetcol HTR offers unsurpassed transfer yield, excellent contour and fine detail printing as well as superb evenness which is the trademark of Coldenhove Papier.

the standard: Jetcol HTR 2000

Jetcol HTR 2000 proved to be the right paper at the right time. It was introduced when the first generation of inkjet printers made their appearance in the printing shops of transfer printers all around the world. Jetcol HTR quickly established itself as the industry standard. In close cooperation with our customers and business partners we maintain a continuous development programme to ensure that Jetcol HTR continues to fulfil the requirements of this rapidly advancing technology.

Jetcol HTR 2000 specifications

Jetcol HTR 2000 is available from stock in the following standard specifications:

Roll width	Length	Core	Diameter
42 cm	50 metres	5 cm	9.5 cm
91.4 cm	50 metres	5 cm	9.5 cm
130 cm	150 metres	7.6 cm	15 cm
160 cm	150 metres	7.6 cm	14 cm

the high performance paper: Jetcol HTR 9000

The newest member of the Jetcol family, Jetcol HTR 9000 is a top of the range digital transfer paper for extremely demanding applications.

Jetcol HTR 9000 will be available in a select range of roll widths. Prior to its launch samples of this new product can be obtained from our mill for trial purposes.

Jetcol HTR is manufactured and supported by the Coldenhove Papier organization.

further information and prices

For prices and information please contact us on:

Tel: + 31 313 659 010

Fax: + 31 313 654 655

Please note new numbers effective July 1999:

Tel: + 31 313 670 670 Fax: + 31 313 670 680

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